| THIS IS NOT | AN ORDER - THIS IS A RE | QUEST FOR I | FAX BIDS ONLY | | | | | | | |
|---|--|-----------------------------------|--|----------------|-------|--|-----------------|--------------------------|--|--|
| P.R. NO: 195 | | | | | | | | | | |
| Date of Request Or Date Publishing: 11/03/05 | | DEPT OF T | DELIVERY POINT: DEPT. OF TRANSPORTATION AND DEVELOPMENT | | | ****** FAX QUOTE ****** RETURN BY FAX TO: 225-379-1862 or 225-379-1481 ATTN: PAM PARKER PHONE: (225)379-1441 | | | | |
| Date Bid Due: 11/09/05 | | DELIV | DELIVER TO VARIOUS LOCATIONS AS SPECIFIED TO BATON ROUGE, LA OR NEW ORLEANS, LA AREA | | | | | | | |
| Time Bid Due: 9:00 A.M. | | | | | | | | | | |
| Time of Oper | ning: 9:00 A.M. | | | | | | | | | |
| STOCK NUMBER | | DESCRIPTION | | QUANTITY | U.M. | UNIT PRICE | TOTAL AMOUNT | BRAND NAME AND NUMBER | | |
| | CONTRACT TO FURNISH FOR MOUNTING SIGNALS MONTHS BEGINNING WIT SPECIFICATIONS ATTACK | FOR A PERIC TH DATE OF A | DD OF SIX (6) | | | | | | | |
| 001 | SLIP FITTER, 4 IN PIPE, W ONE WAY TOP COMM. SUBCLASS: 89 | | | 250 | EA | | | | | |
| 002 | PEDESTAL POLE MOUNT. WAY ASSEMBLY AS PER COMM. SUBCLASS: 89 | ACKET, TWO RAWING | 192 | EΑ | | | | | | |
| 003 | PEDESTAL POLE MOUNT WAY ASSEMBLY, AS PER COMM. SUBCLASS: 89 | 5 | EA | | | | | | | |
| 004 | SIGNAL HEAD CLAMP MO POLE ASSEMBLY) _COMM SUBCLASS: 89 | 164 | EA | | | | | | | |
| 005 | MAST ARM BRACKET ASSEMBLY COMM. SUBCLASS: 89 | | | | EA | | | | | |
| | ******* ********** BIDD I CAN MEET THE DELIVE BID DOCUMENT: | E LISTED IN THE NO | | | | | | | | |
| | SUCCESSFUL BIDDER WI OF ORDER WHERE DELIV PRICE MUST INCLUDE D LA OR NEW ORLEANS, L | /ERY IS TO BE ELIVERY TO E | E MADE. UNIT | | | | | | | |
| | ALL BIDDERS SHOULD II PART/MODEL NO. ON EA | | | | | | | | | |
| | NOTE: ALL BIDDERS MA DESCRIPTIVE LITERATU | | 1 | | | | | | | |
| | ITEMS 001, 002, AND 003 WILL BE AWARDED TO OVERALL LOW BIDDER ON THOSE ITEMS IN ORDER TO ENSURE COMPABILITY. | | | | | | | | | |
| If you need - | dditional information al | | LOGE ATTACHMENT FOR CO | ECIAL CONT | ITIO: | IS INSTRU | CTIONS AND | DEE(NITIONS | | |
| If you need additional information, please call: PAM PARKER (225)379-1441 | | | SEE ATTACHMENT FOR SPECIAL, CONDITIONS, INSTRUCTIONS AND DEFINITIONS. FAILURE TO COMPLY WITH SAME MAY DISQUALIFY YOUR BID OR QUOTATION | | | | | | | |
| FIRM: | | | MAILING ADDRESS: | | | | | | | |
| BY: (signature) | | | City: State: Zip: | | | | | ip: | | |
| BY: (PRINT OR TYPE NAME) | | | REMITTANCE TO BE MADE TO ADDRESS OTHER THAN ABOVE: | | | | | _ | | |
| PHONE #: | | | Street/Box | City State Zip | | | | | | |
| FED. ID. NUMBER: | | Vendor FAX Number: Email Address: | | | | | | | | |

| THIS IS NOT | AN ORDER - THIS IS A RE | QUEST FOR I | FAX BIDS ONLY | | | | | |
|--|--|---|---|----------|---|---------------|-----------------|---------------------------------------|
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| Date Bid Due: 11/09/05 | | DEL | PT. OF TRANSPORTATION AND DEVELOPMENT DELIVER TO VARIOUS LOCATIONS AS SPECIFIED TO BATON ROUGE, LA OR NEW ORLEANS, LA AREA | | | | | |
| Time Bid Due: 9:00 A.M. | | | | | | | | |
| Time of Opening: 9:00 A.M. | | | | | | | | |
| STOCK NUMBER | | DESCRIPTION | ON | QUANTITY | U.M. | UNIT PRICE | TOTAL AMOUNT | BRAND NAME AND NUMBER |
| | THIS IS A REQUEST FOR YOUR BID BY FAX TO: 22 THE DATE/TIME SPECIFI | AY BE ALLOV UCED, GROW NA OF EQUAL RENCE: YES: OUISIANA: NOTE ENCE SHOUL RCE IS COMF O BE ENTITLI NA VENDORS ICATE: THIS COMPRISED NO: REQUIRED REQUIRED | WED FOR PRODUCTS VN, ASSEMBLED OR _ QUALITY. DO YOU E | | | | | |
| If you need additional information, please call: PAM PARKER (225)379-1441 FIRM: | | SEE ATTACHMENT FOR SPECIAL, CONDITIONS, INSTRUCTIONS AND DEFINITIONS. FAILURE TO COMPLY WITH SAME MAY DISQUALIFY YOUR BID OR QUOTATION | | | | | | |
| BY: (signature) | | | MAILING ADDRESS: City: State: Zip: | | | | | |
| BY: (PRINT OR TYPE NAME) | | City: State: Zip: REMITTANCE TO BE MADE TO ADDRESS OTHER THAN ABOVE: | | | | | | |
| PHONE #: | | | Street/Box City State Zip | | | | | |
| FED. ID. NUMBER: | | Vendor FAX Number: Email Address: | | | | | | |
| | | · | Linaii Addiess. | | | | | · · · · · · · · · · · · · · · · · · · |

INSTRUCTIONS FOR SUBMITTING FAX BIDS

- 1. Type or print in ink in blanks provided. Bids submitted in pencil will not be accepted.
- 2. Any corrections, erasures or other forms of alteration to unit price should be initialed by the bidder.
- 3. Bid must be as per specification(s) furnished.
- 4. Bidders must comply with all instructions shown in invitation to Bid. Failure to comply may result in rejection of bid.
- 5. Bid should be submitted in unit of measure as requested. Bids submitted in a different unit of measure may not be considered for award.
- Unit price for each item must not exceed four digits to right of decimal point. Unit price submitted beyond four digits will be rounded off to nearest fourth digit.
- 7. Give complete information, attach letter if more space is needed.
- 8. Bids must be quoted on a firm basis for a thirty day period from bid opening date.
- 9. Bid must be net and include all handling charges and transportation charges fully prepaid to destination unless delivery point indicates otherwise. Bids containing "Payment in Advance" will be rejected. Payment is to be made within 30 days after receipt of properly executed invoice or delivery, whichever is later.
- 10. Bids must be submitted exclusive of all Federal and State Taxes unless specified otherwise in bid form. State Agencies are exempt from all State and Local Sales Taxes.
- 11 Complete column marked "Total Amount" which is computed by multiplying "Quantity" column by "Unit Price" column.
- 12. Indicate any discount in blank provided for "Terms". Cash discounts for less than thirty (30) days or less than one percent (1%) will be accepted, but will not be considered in determining low bidder.
- 13. In blank provided for "Delivery" indicate amount of time needed to complete delivery of entire order.
- 14. Signature of person completing bid must be submitted on each bid. A typed name without a signature WILL NOT be accepted.
- 15. Indicate Federal Identification Number or Social Security Number, whichever is applicable.
- 16. Fax bid to this fax number (225) 379-1862. Keep a copy of bid for your records. Bidders are hereby advised that the U.S. Postal Service does not make delivery to our physical location.

Bids may be mailed through the U.S. Postal Service to our box at: DOTD Procurement Section P. O. Box 94245, Capitol Station Room 304M, Headquarters Baton Rouge, LA 70804-9245

Bids may be delivered by hand or courier service to our physical location as follows: DOTD Procurement Section Room 304M, Headquarters 1201 Capitol Access Road Baton Rouge, LA 70802.

Bidder is solely responsible for ensuring that it's courier service provider makes inside deliveries to our physical location. The DOTD Procurement Office is not responsible for any delays caused by the bidder's chosen means of bid delivery. Bidder is solely responsible for the timely delivery of its bid. Failure to meet the bid opening date and time shall result in rejection of the bid.

- 17. Bids must be submitted on D.O.T.D. bid form.
- 18. Deviations to the Department's Special Conditions and Specifications will not be allowed. Vendor's special conditions and terms which differ from the bid proposal will cause rejection of bid.
- 19. By signing the bid form, the bidder certifies that this bid is made without collusion or fraud.
- 20. In accordance with R.S. 39:1594 (Act 121), the person signing the bid must be: A current corporate officer, partnership member or other individual specifically authorized to submit a bid as reflected in the appropriate records on file with the Secretary of State: or An individual authorized to bind the vendor as reflected by an accompanying corporate resolution, certificate or affidavit; or An individual listed on the State of Louisiana Bidder's Application as authorized to execute bids.

Evidence of authority to submit the bid shall be required in accordance with R.S. 38:2212 (A)(1)(c) and/or R.S. 39:1594(C)(2)(d).

By signing the bid, the bidder certifies compliance with the above.

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
JOHNNY B. BRADBERRY, SECRETARY
DANA D. WATLINGTON
DOTD PROCUREMENT DIRECTOR
STREET ADDRESS: 1201 CAPITOL ACCESS ROAD, ROOM 304M
MAILING ADDRESS: P.O. BOX 94245, BATON ROUGE, LA 70804-9245

- SPECIAL INSTRUCTIONS & CONDITIONS

 1. PURPOSE AND INTENTION: The purpose and intention of this invitation to bid is to establish a contract between the Department and the successful bidder(s) to furnish supplies, materials, equipment and/or services in accordance with requirements described herein.
- 2. QUANTITIES: No specific quantities are given or guaranteed on Contracts. Only such quantities are required by the Department during the contractual period will be ordered.
- 3. BID DEADLINES: All Sealed Bids will be received by the Department in Room 304M, Headquarters Administration Building, 1201 Capitol Access Road, Baton Rouge, Louisiana until 9:45 a.m. on the same date as shown on bid form. All bids must be time and date stamped in the Procurement Section or it will be considered late. No bids will be accepted after this time. At 10:00 a.m. of the same day, they shall be publicly opened and read in Room 304M, Headquarters Administration Building. Request for Quotations must be received by 2:00 p.m. on DATE BID DUE as shown on bid form. All bids must be time and date stamped in the Procurement Section or it will be considered late. Bids received after 2:00 p.m. will not be accepted.
- 4. BID OPENING: Bidders may attend the bid opening, but no information or opinions concerning the ultimate contract award will be given at the bid opening or during the evaluation process. Bids may be examined within 72 hours after bid opening. Information pertaining to completed files may be secured by visiting the Department during normal working hours. Written bid tabulations will **not** be furnished.
- 5. AWARD: The Department reserves the right to award items separately, by groups or on overall low bid basis to the lowest responsible and responsive bidder meeting the requirements and criteria set forth in the Invitation to Bid, taking into consideration the best interest of the Department. Award will be made without discrimination on grounds of race, color, or national origin. Minority business enterprises will be afforded full
- 6. TIE BIDS: In state vendors shall be given preferences in the case of tie bids.
- 7. CANCELLATION OF AWARD: The Department reserves the right to cancel any contract, in accordance with purchasing rules and regulations, for cause, including but not limited to, the following: (1) Failure to deliver within the time specified in the contract; (2) Failure of the product or service to meet specifications, conform to sample quality or to be delivered in good condition; (3) Misrepresentation by the contractor; (4) Fraud, collusion, conspiracy or other unlawful means of obtaining any contract with the State; (5) Conflict of contract provisions with constitutional or statutory provisions of State or Federal Law; (6) Any other breach of contract. Should the contractor find that due to increase in price or product availability, order cannot be filled, he is to submit to the DOTD Procurement Director a request for cancellation stating the reason for the request.

8. REJECTION OF BID: THE DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT RESERVES THE RIGHT TO REJECT ANY AND/OR ALL BIDS AND WAIVE ANY INFORMALITIES.

- 9. TAXES: EFFECTIVE SEPTEMBER 11, 1991, PURSUANT TO ACT 1029 OF THE 1991 REGULAR SESSION OF THE LEGISLATURE THE STATE AND ANY OF ITS AGENCIES, BOARDS OR COMMISSIONS ARE **EXEMPT** FROM THE LOUISIANA STATE SALES/USE TAXES.
- 10. NEW PRODUCTS: Unless specifically called for in the solicitation, all products for purchase must be new, never previously used, and the current model and/or packaging. No remanufactured, demonstrator, used or irregular product will be considered for purchase unless otherwise specified in the solicitation. The manufacturer's standard warranty will apply unless otherwise specified in the solicitation.
- 11. BRANDS: UNLESS OTHERWISE SPECIFIED IN THE SOLICITATION, ANY MANUFACTURER'S NAME, TRADE NAME, BRAND NAME, OR CATALOG NUMBER USED IN THE SPECIFICATION IS FOR THE PURPOSE OF DESCRIBING THE STANDARD OF QUALITY, PERFORMANCE, AND CHARACTERISTICS DESIRED AND IS NOT INTENDED TO LIMIT OR RESTRICT COMPETITION.
- 12. ALTERNATE BIDS: IF ITEM(S) DOES NOT FULLY COMPLY WITH SPECIFICATIONS (INCLUDING BRAND AND/OR PRODUCT NUMBER), BIDDER MUST STATE IN WHAT RESPECT ITEM(S) DEVIATE. FAILURE TO NOTE EXCEPTIONS ON THE BID FORM WILL NOT RELIEVE THE SUCCESSFUL BIDDER(S) FROM SUPPLYING THE ACTUAL PRODUCTS REQUESTED.
- 13. DEFAULT OF CONTRACTOR: Failure to deliver within the time specified in the bid will constitute a default and may cause cancellation of the contract. Where the Department has determined the contractor to be in default, the State reserves the right to purchase any or all products or services covered by the contract on the open market and to charge the contractor with cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid from the defaulting contractor will be considered.
- 14. APPLICABLE LAW: All contracts shall be construed in accordance with and governed by the laws of the State of Louisiana.
- 15. SPECIAL ACCOMMODATION: Any "Qualified Individual with a Disability" as defined by the Americans with Disabilities Act who has submitted a bid and desires to attend the bid opening, must notify this office in writing no later than seven (7) days prior to the bid opening date of their need for special accommodations. If the request cannot be reasonably provided, the individual will be informed prior to bid opening.
- 16. INDEMNITY: Contractor agrees, upon receipt of written notice of a claim or action, to defend the claim or action, or take other appropriate measure, to indemnify, and hold harmless, the State, its officers, its agents and its employees from and against all claims and actions for bodily injury, death or property damages caused by the fault of the contractor, its officers, its agents, or its employees. Contractor is obligated to indemnify only to with respect to any claim or action from bodily injury, death or property damages arising out of the fault of the State, its officers, its agents or its
- 17. EQUAL OPPORTUNITY CLAUSE: The Department of Transportation and Development and the State of Louisiana is an equal opportunity employer and jooks to its contractors, subcontractors, vendors and suppliers to take affirmative action to affect this commitment in its operations. By submitting and signing this bid, bidder certifies that he agrees to abide by the requirements of the following as applicable: Title VI and VII of the Civil amended, the Veteran's Readjustment Assistance Act of 1972, Federal Executive Order 11246, Federal Rehabilitation Act of 1973, as agrees to abide by the requirements of the Americans with Disabilities Act of 1990. Bidder agrees not to discriminate in its employment practices and status, political affiliation, or disabilities. Any act of discrimination committed by bidder, or failure to comply with these statutory obligations when applicable shall be grounds for termination of any contract entered into as a result of this proposal. Bidder agrees to keep informed of and comply with all Federal, State, and local laws, ordinances and regulations which affect his employees or prospective employees.

(Rev. 10/11/04)

Traffic Signal Head Mounts & Clamps

The Department of Transportation and Development reserves the right to purchase the above item or items at the same prices, terms and conditions shown above for a period of six (6) months from the date of the purchase order.

PRICES SHALL REMAIN FIRM FOR THE ENTIRE CONTRACTUAL PERIOD.

Although unlikely, due to the nature of the project, the Department of Transportation reserves the right to renew this contract for an additional six (6) month period at the same prices, terms and conditions set forth in the original bid. Prior to exercising the Department's option to extend the contract, the Department will determine if an extension is in the best interest of the Department.

DELIVERY SCHEDULE

The manufacturers are notified that time is of the essence to return the New Orleans traffic signal system to operation.

The successful bidder is required to provide half the requested quantities of materials listed in the bid within four weeks of receipt of purchase order and the entire balance of purchase order within six weeks of receipt of purchase order.

All bidders are notified that failure to provide the materials required as specified in the delivery schedule will result in termination of the contract.

Any subsequent orders shall have the same delivery schedule.

The listed quantities of items shall be shipped in accordance with the above schedule; additional orders will be on new purchase orders issued directly to the successful bidder with the same schedule.

CAST ALUMINUM SIGNAL MOUNTING HARDWARE

MATERIAL: Slipfitter shall be cast aluminum alloy 319 or equivalent, free of voids, pits, dents, molding sand and excessive foundry grinding marks. All design radii shall be smooth and intact. Exterior and interior surface finish shall be smooth free of molding fins, cracks and other exterior blemishes. All hardware shall be stainless steel.

PHYSICAL DIMENSIONING: The hardware shall be manufactured to fit and be attached to standard traffic signal hardware equipment. For four-inch pedestal poles the slipfitters shall freely slip on to the pole completely with the end of the pole resting on the closed end of the slipfitter. The minimum depth of the slipfitter is 3-1/2", the inside diameter at the open end shall be 4-5/8", and the outside diameter shall be 5-3/8". The slipfitter shall be attached to the traffic signal using a tri-stud arrangement and provide positive locking using serration castled into the slipfitter. The tri-studs shall be spaced equally on a circle and shall fit within a two-inch circle without touching the circle. The studs shall be 5/16" NC x 1-1/2".

Three set screws shall be 5/16"NC x 3/4 "

ATTACHMENT: The slipfitter shall be held onto the pole using three setscrews that are install on the open end of the slipfitter. The setscrews shall be equally spaced on the circumference of the opening.

HARDWARE: A three-hole washer and flanged nuts fitting the tri-stud mounting arrangement on the slipfitter shall be provided with each slipfitter. Three setscrews shall be installed in the slipfitter.

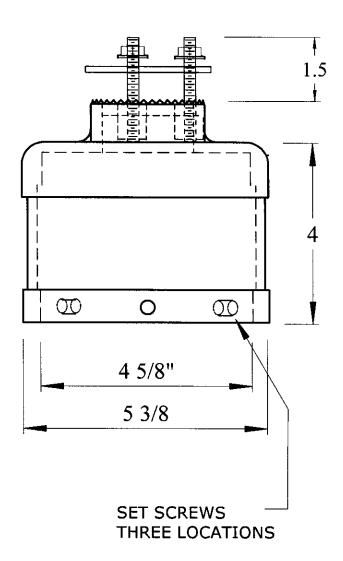
FINISH: The slipfitter shall be powder coated with SF TT – C595, Color No. 14036.

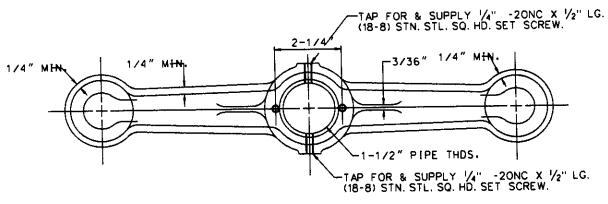
PAINT

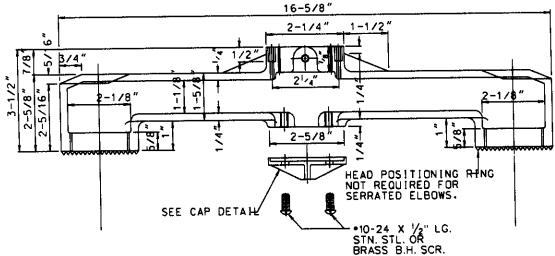
THE SURFACE OF THE ALUMINUM CASTING MUST BE CLEANED. DEGREASED AND SHOP PAINTED WITH ONE COAT OF ZINC CHROMATE-IRON-OXIDE PAINT CONFORMING TO THE CURRENT REQUIREMENTS OF SPECIFICATION M-142 OF AASHTO. WHEN THIS PAINT HAS THOROUGHLY DRIED. IT SHALL THEN BE SHOP PAINTED WITH A COAT OF GREEN ENAMEL PAINT READY MIXED CONFORMING TO THE REQUIREMENTS OF FEDERAL SPECIFICATIONS 595A FOR ENAMEL; GLOSS. SYNTHETIC (FOR EXTERIOR AND INTERIOR SURFACES) CLASS A. AIR DRYING THE TINT OF WHICH SHALL MATCH GLOSS-GREEN BLACK STANDARD COLOR NO. 14036, AS SHOWN IN THE FEDERAL SPECIFICATION 595A COLOR; (FOR READY MIXED PAINT).

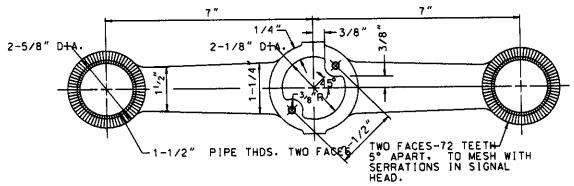
NOTES:

- 1. UNITS SHALL BE MANUFACTURED IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS. LUMUNAIRES AND TRAFFIC SIGNALS.
- ALL STAINLESS STEEL BOLTS ON THIS SHEET PER ASTM A193 GRADE B8.
- 3. AILTERNATE DESIGNS OF THE BRACKETS WILL BE PERMITTED.









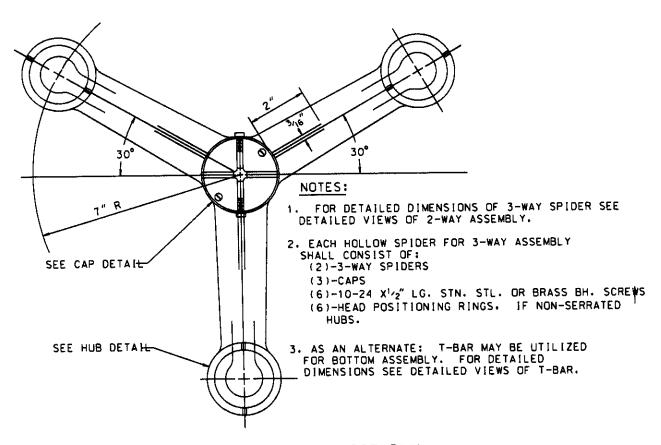
HOLLOW BRACKET FOR 2-WAY ASSEMBLY

MATL. ALUM ALLOY 356

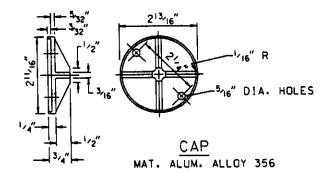
NOTE:

- 1. EACH HOLLOW SPIDER FOR 2-WAY ASSEMBLY SHALL CONSIST OF:
 - (1)-2-WAY SPIDER
 - (1)-CAP

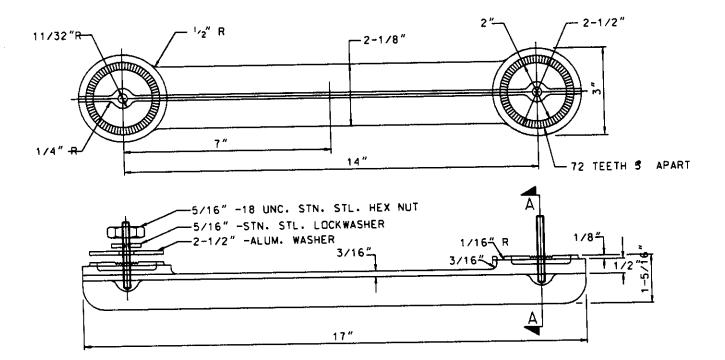
 - (2)-10-24 X 12" LG. STN. STL. OR BRASS BH. SCREWS (2)-HEAD POSITIONING RINGS. IF NON-SERRATED HUBS
 - (1)-T-BAR ASSEMBLY (SEE T-BAR NOTE 2)



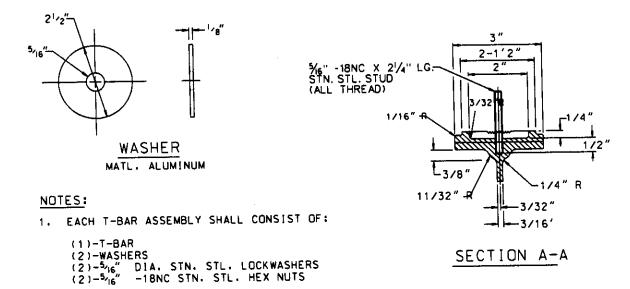
HOLLOW BRACKET FOR 3-WAY ASSEMBLY



ALTERNATE T-BAR ASSEMBLY



T-BAR
MATL. ALUM ALLOY 356



2. FOR USE WITH 2-WAY HOLLOW SPIDER ASSEMBLIES WHERE SIGNAL FACES ARE SAME SIZE AND CONFIGURATION.

SPECIFICATION UNIVERSAL SIDE-OF-POLE ASSEMBLY

MATERIAL:

The Universal Side-of-Pole Mounting Assembly, cast and extruded parts shall be free of voids, pits, dents, molding sand and excessive foundry grinding marks. All design radii shall be smooth and intact. Exterior and interior surface finish shall be smooth and cosmetically acceptable, free of molding fins, cracks and other exterior blemishes. Certification shall be available upon request.

Shall be fabricated from with minimum requirements as follows:

| : | Die Cast | <u>Extrusion</u> |
|------------------------|----------|------------------|
| Aluminum Alloy | 380 | 6063-T6 |
| Yield Strength, KSI | 23 | 25 |
| Tensile Strength, KSI. | | |
| Brinell Hardness | 80 | 73 |
| Elongation (% in 2") | 4 | 12 |

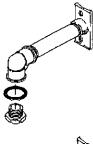




Figure 1

DESIGN:

- 1. The Universal Side-of-Pole Mounting Assembly Arm shall be assembled as shown in Figure 1.
- 2. The Upper Arm shall consist of a Serrated Ell, 12" Nipple, Gasket and Cast Nipple.
 - A. The Serrated Ell shall be die cast from Alloy 380 and have a serrated 72 tooth boss on one end. The outside diameter of the serration shall not exceed 2 3/8". The non-serrated end of the Ell shall be notched to accept a separate serrated lockring. The Ell shall be threaded 1½"-11½" NPS on both ends. The Ell shall have a minimum 3/8" width boss that extends the entire length of both sides. On one side of the boss at each end of the Ell shall be a 1/2"-20 threaded opening for a
 - B. A 60-70 durometer neoprene Gasket shall be provided for the top arm.
 - C. A Die Cast Nipple shall be assembled into the Ell. The cast nipple shall be 11/2" NPS with thread length of 11/2" The head of the Cast Nipple shall be hex and 21/2" across the flats. An indention shall be on each corner to accommodate a spanner wrench for tightening.
 - D. A 11/2" x 12" extruded Nipple shall have 11/2" NPS threads on both ends. The nipple shall have a "brushed" finish. The rough surface texture shall add to the appearance and also provide for greater paint adhesion.
- 3. The Lower Arm shall consist of a Serrated Tee, 12" Nipple and Cast Nipple.
 - A. The Serrated Tee shall be fabricated like the Ell except the Tee is to have serrations on (2) two threaded openings 90E apart. The non-serrated end shall come standard with a plastic knockout
 - B. The Die Cast Nipple shall be same as above.
 - C. The 11/2" x 12" Nipple shall be same as above.
- 4. The Universal Hub Plate shall be designed in accordance with Specification Bulletin No. 3087.
- 5. 1/2"-20 Square Head Setscrews shall be plated zinc with yellow dichromate or stainless steel.

PACKAGING: Upper Arm shall be heat sealed in a plastic bag for protection. The Upper Arm shall then be placed into a larger bag containing the Lower Arm. Exposed end of nipple shall have thread protector. If required the Hub Plates shall be included in the packaging.

FINISH:

Prior to painting the die castings shall be cleaned in a alkaline cleaning compound (i.e. Potassium Hydroxide solution) to remove oils, grease, dirt, etc. Extruded parts shall have an alodine conversion coating to provide a proper base for paint adhesion. The assembly shall be painted federal 5954 color No 1403 Cand baked in a drying oven after painting.

MAST ARM BRACKET

6 1/2" Mounting Arm Top and Bottom

The device described herein is for mounting vehicle traffic signals to rigid cylindrical structures. Design of the device shall conform to the latest ASSHTO standards for wind loading and ITE standards for attaching to the signal. The AASHTO and ITE standards will be followed except where exceptions are taken within this standard. Seco-South Mast-O-Bracket Series CM42 with a type 3 tube wire entrance, and 50" cable assembly as shown on the drawing OAE.

GENERAL DESIGN

This traffic signal mounting device shall be a multi piece assembly providing adjustable components to mount the signal in a horizontal or vertical position relative to the roadway surface. The device shall mount to any type of structure and provide complete adjustment of the mounting hardware as shown in the drawing to align the traffic signal toward the driver. Adjustment and installation shall be made using simple hand tools. Modifying, milling, drilling, or threading of the supporting structure shall not be required. The device shall include the signal attachment arms, support tube, swivel plate, cable stays, and main mount. All cast parts shall be from aluminum or brass and fasteners shall be of stainless steel.

MAIN MOUNT

The device shall have a single uniformly cast main mounting surface with two standoffs perpendicular to the mounting surface as shown in the drawing. The width of the mount shall be approximately 9-1/2" long and 4-1/2" wide. The standoffs shall rest against the supporting structure and held in place by cables attached to the mount and wrapped around the structure. The standoffs shall be approximately 1-3/8" long and the same width as the mount. Each standoff shall be "V" shaped in the center and flat on each side perpendicular to the centerline of the "V". Within the "V", along each line, shall be multi-step detents forming flats perpendicular to the centerline of the "V". The intent of this design is to provide stable positioning of the mount against various shaped structures (such as multi sided, round, or square tubes). Any mount that does not provide stable positioning on any structure will be unacceptable.

The face of the main mount, opposite side from the standoffs, shall be designed for attaching a swiveling plate. The swiveling plate shall be secured to the mount using two bolts and washers through slotted holes in the plate and into threaded bosses in the mount. Two sets of bosses shall be provided in the mount located ninety degrees (90°) apart. The swivel plate and main mount shall be designed to provide an alignment mechanism positioning the plate correctly on the mount, an axis for rotating the plate on the mount and align the slotted holes with the threaded bosses.

MAST ARM BRACKET

A cable locking plate shall be provided on both sides of the mount that will secure the cable to the mount. Through holes shall be provided in the mount and locking plates for threaded studs to be inserted. Using a nut and washer installed on the cable stud shall provide a means to tighten the cable around the structure. During installation of the mount the locking plate shall allow the cable to be hand tighten against the structure by permitting the free end to be pulled through the plate. Once the locking plate is tighten against the cable then the cable is tighten against the structure using a nut and washer. The design of the locking plate shall use one bolt, attaching the locking plate to the mount, and the nut and washer, used to tighten the cable, shall be used to secure the free end of the cable between the cable and plate.

SWIVEL PLATE

The swivel plate shall be cast in one piece providing a matched surface to the main mount, slotted holes for adjustment and attachment, and two tube clamps. The diameter of the plate shall be approximately 5".

An alignment boss shall be provided on the plate that will fit into an alignment hole, approximately 2" diameter, in the main mount. Rotation of the swivel plate shall be unrestricted for three hundred and sixty degrees (360°) without the bolts attaching the plate to the main mount installed.

The slots shall allow the swivel plate to rotate a minimum of fifty-four degrees (54°) with the bolts installed through the slots in the threaded bosses on the main mount.

The two clamps shall be designed to compress around an aluminum tube, described below. Each clamp shall have two bolts securing the removable part of the clamp to the swivel plate. The compression onto the tube shall secure the tube preventing it from movement in any direction with the specified torque on the bolts.

ALUMINUM TUBE

The aluminum tube shall be manufactured from aluminum alloy 6061-T6 material and be schedule 40 thickness. The length shall be a minimum of five feet (5') and have wire entrance slots, 3/4" x 9", as shown in the drawing. The outside of the tube shall be smooth for positioning within the clamps on the swivel plate throughout the length of the tube.

SIGNAL MOUNTING ARM, TOP AND BOTTOM

Each mounting arm shall be designed to slip fit onto the aluminum tube. Each arm shall be secured to the tube using two 3/8" set screws with square heads.

The bottom arm shall be designed with a stop for the tube to be positioned against when the arm is secured to the tube. A wireway shall be provided from the interior of the bottom arm into the

MAST ARM BRACKET

tube. A serrated fitting shall be provided to fit against the mounting point of the vehicle signal and secured to the signal using a tri-stud with washer device. A black ABS plastic cover shall be provided covering the wireway within the bottom arm and secured to the arm with two sheet metal screws.

The top arm shall be designed that will allow the arm to be positioned at any point on the tube. The arm shall be cast in one piece. A serrated fitting shall be provided to fit against the mounting point of the vehicle signal and secured to the signal using a single bolt and washer device.

The length of the arms shall be as shown on the drawing.

CABLE ASSEMBLES

Cables shall be 3/16" stainless steel aircraft cable with a securely attached threaded stud on one end. The free end of the cable shall be electrically fused together preventing the cable from fraying. Two cables shall be used to secure the main mount to the supporting structure. Standard cable lengths are shown on the drawing shall be provided. Special cable length identified on the plans or orders shall be provided in place of the standard lengths.

HARDWARE

All hardware shall be plated to prevent corrosion. All bolts and washers shall be 3/8" - 16 TPI with 9/16" hex heads. The setscrews shall be 3/8" - 16 TPI with square heads stainless steel. The studs in the arms for attaching to the signal head shall be 5/16" - 18 TPI stainless steel. All nuts and washers shall be provided

CAST MATERIAL

Aluminum shall be used for all cast parts. The material shall be 713 alloy meeting ASTM B179 standards. When specified on order or in plans the cast parts shall be copper alloy no. C83600, (formerly know as leaded red brass, composition bronze, 85-5-5-5).

